

BERAGOLDYAN, R.V.; YAFIMENKO, I.M.; SHUMSKY, V.I.; LYASHIN, Ya.I.;
KOSTIN, V.I.; LEBMAN, B.Ya.

Radiochemical sulfochlorination of kerosene and synthine. Mikrokhim.
41 no.4:7-11 Ap '65. (MIRA 18:2)

LYASHKO, A.

Specialized enterprises: faster service, lower costs of production.
Obshchestv.pit. no.9:26 S '63. (MIRA 16:12)

1. Zamestitel' nachal'nika upravleniya obshchestvennogo pitaniya
Ministerstva trgovli UkrSSR.

AUTHOR: Lyashko, A.D.

SOV/140-58-4-17/30

TITLE: ~~On the Generalization of the Method of Galerkin~~ (K obobshcheniyu metoda Galerkina)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1958, Nr 4, pp 153-160 (USSR)

ABSTRACT: The paper consists of four parts, the first and the second of which give the proofs for the announcement [Ref 10], while the third and the fourth part contain two examples for the application of the proposed method. There are 10 Soviet references.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina (Kazan' State University imeni V.I.Ul'yanov-Lenin)

SUBMITTED: December 9, 1957

Card 1/1

AUTHOR: Lyashko, A.D.

SOV/140-58-6-17/27

TITLE: On the Convergence of Methods Analogous to the Method of Galerkin
(O skhodimosti metodov, analogichnykh metodu Galerkina)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1958, Nr 6,
pp 176-179 (USSR)

ABSTRACT: The present paper completes the author's earlier publication
[Ref 7]. It is shown that for an application to the same problem
the usual method of Galerkin yields a quicker convergence than
the combination of the method of Galerkin with the method of the
least squares. The combined method, however, yields a better
uniform convergence (uniform convergence of the solution and its
first or second derivatives).
There are 7 Soviet references.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina
(Kazan' State University imeni V.I.Ul'yanov-Lenin)

SUBMITTED: February 27, 1958

Card 1/1

AUTHOR: Lyashko, A.D.

SOV/20-120-2-4/63

TITLE: On the Convergence of Methods of the Galerkin Type (O skhodimosti metodov tipa Galerkina)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 120, Nr 2, pp 242-244 (USSR)

ABSTRACT: Let X and Y be Gilbert spaces, let A and K be linear operators of X in Y , let there exist A^{-1} and let it be bounded. The author considers the solution of the equation

$$Au + \lambda Ku = v, \quad v \in Y$$

according to the method of Galerkin-Petrov [Ref 1] and similar methods. The author proposes a general scheme (joining results of Kantorovich [Ref 3]) for the application of these methods and gives very simple conditions for the convergence of the methods. There are 5 Soviet references.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina (Kazan' State University imeni V.I.Ul'yanov-Lenin)

PRESENTED: January 14, 1958, by S.L.Sobolev, Academician

SUBMITTED: January 13, 1958

1. Topology 2. Operators(Mathematics)---Applications

Card 1/1

LYASHKO, A. D., Candidate of Phys-Math Sci (diss) -- "On the approximate solution of linear problems using methods of the Galerkin type". Kazan', 1959. 7 pp
(Kazan' Order of Labor Red Banner State U im V. I. Ul'yanov-Lenin), 150 copies
(KL, No 21, 1959, 111)

16(1)

SOV/140-59-2-30/30

AUTHOR: Lyashko, A.D.

TITLE: Letter to the Editor (Pis'mo v redaktsiyu)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959,
Nr 2, p 275 (USSR)

ABSTRACT: The author corrects an error in his paper "On the Generalization
of the Method of Galerkin" in Izvestiya vysshikh uchebnykh
zavedeniy. Matematika, 1958, Nr 4, pp 153-160, and he thanks
V.V.Morozov who called the author's attention to the error.

Card 1/1

USCOM4-DC-60,831

16(1)

SOV/20-128-3-9/58

AUTHOR: Lyashko, A.D.

TITLE: Some Versions of the Galerkin-Krylov Method

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 3, pp 468-470 (USSR)

ABSTRACT: In [Ref 3] the author proved the convergence of a projection method for solving the equation

$$(1) \quad Gx - \lambda Tx = y,$$

where G and T are linear operators from X into Y ; X, Y linear spaces. For the space X he introduced certain metrics. In the present paper the author shows that by introduction of other metrics several variants of the Galerkin method can be obtained. Let $[x_1, x_2]$ be a metric of X . The author particularly investigates the metric

$$(3) \quad [x_1, x_2] = (Kx_1, x_2),$$

where $K=E$ (unit operator) or $K=G$ or where K is a B -positive-definite operator [Ref 6] etc.

The author mentions L.V.Kantorovich, S.G.Mikhlin, N.M.Krylov, I.K.Daugavet and I.V.Svirskiy.

Card 1/2

Some Versions of the Galerkin-Krylov Method

SOV/20-126-3-9/3

There are 7 Soviet references.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina (Kazan' State University imeni V.I.Ul'yancv-Lenin)

PRESENTED: May 27, 1959, by S.L.Sobolev, Academician

SUBMITTED: May 23, 1959

Card 2/2

LYASHKO, A.D.

Approximate solution of one-dimensional boundary value problems
Izv.vys.ucheb.zav.; mat. no.2:95-99 '62. (MIRA 15:8)

1. Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina.
(Boundary value problems) (Approximate computation)

36923
S/140/62/000/002/004/005
C111/C444

12 4/50
AUTHOR:

Lyashko, A. D.

TITLE:

On the approximative solution of one-dimensional boundary value problems

PERIODICAL:

Vysshiyе uchebnyye zavedeniya. Izvestiya. Matematika, no. 2, 1962, 95-99

TEXT:

The equation

$$Gx + \lambda Tx = y \quad (1)$$

G and T being linear operators in H, with G^{-1} existing, is to be solved

by the set-up $x_n = \sum_{k=1}^n a_k \varphi_k$. If one introduces $m+1$ spaces X_i ($i=0,1,\dots$

\dots, m) with the metrics

$$[x_1, x_2]_i = (K_i G x_1, K_i G x_2) \quad (3)$$

where K_i are linear operators, the inverse operators of the $K_i G$ being bounded, then the coefficients a_k can be determined in $(m+1)$ ways since

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S/140/62/000/002/004/005
G111/C444

On the approximative solution of ...

for every i there holds

$$(Gx_n^{(i)} + \lambda Tx_n^{(i)} - y, K_1^* K_1 G \varphi_k) = 0 \quad (k = 1, 2, \dots, n)$$

$$x_n^{(i)} = \sum_{k=1}^n a_k^{(i)} \varphi_k^{(i)}, \quad \varphi_k^{(i)} \in X_1 \quad (4)$$

By the example of the Cauchy problem

$$x^{(m)}(t) + \sum_{k=1}^m p_k(t) x^{(m-k)}(t) = y(t), \quad x^{(j)}(0) = 0 \quad (j=0, 1, \dots, m-1)$$

and by the boundary value problem

$$x^{(m)}(t) + \sum_{k=1}^m p_k(t) x^{(m-k)}(t) = y(t) \quad (5)$$

$$x(0) = x'(0) = \dots = x^{(r)}(0) = 0 \quad (7)$$

$$x(1) = x'(1) = \dots = x^{(r-1)}(1) = 0$$

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S/140/62/000/002/004/005

C111/C444

On the approximative solution of ...

the author shows that with increasing i (from 0 to m) the convergency speed decreases, where against one obtains the possibility to estimate higher and higher derivatives of the solution. These statements follow (under the supposition of the solution possessing an l -th derivative) in the case of the Cauchy problem from the estimation

$$\left| \frac{d^i}{dt^i} (x^* - x_n^{(i)}) \right| = O\left(\frac{1}{n^{l-i}}\right)$$

and in the case of the boundary value problem from

$$\left| \frac{d^i}{dt^i} (x^* - P_n(t)) \right| \leq \frac{C}{n^{l-i}}$$

where $P_n(t)$ is a polynomial of n -th degree, satisfying (7), and x^* being the rigorous solution of the problem.

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On the approximative solution of ...

S/140/62/000/002/004/005
C111/C444

The author mentions: Galerkin, A. Ye. Martynyuk, S. G. Mikhlin, A. L. Fuksman, Krylov, Bunyakovskiy.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina (Kazan State University im. V. I. Ul'yanov-Lenin)

SUBMITTED: November 3, 1960

Card 4/4

LYASHKO, A. G.

Pericarditis

Treatment of suppurative pericarditis. Khirurgia no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, November, 1952.
Unclassified.

LYASHKO, A. G.

USSR/ General Problems of Pathology. Tumors

U-4

Abs Jour : Ref Zhur - Biol., No 5, 1958, 23120

Author : Lyashko, A.G.

Inst : -

Title : On the Diagnosis of Osteogenic Sarcomas.

Orig Pub : Khirurgiya, 1957, No 4, 146-148

Abstract : No abstract.

Card 1/1

LYASHKO, A.G., polkovnik meditsinskoy sluzhby

Treatment of burns with fibrin films. Voen.-med.zhur. no.8:76-78
Ag '57. (MIRA 10:12)

(BURNS, therapy,
fibrin film (Rus))
(HEMOSTATICS, therapeutic use,
fibrin film in burns (Rus))

LYASIKO, A.G., polkovnik med.sluzhby

Features of the course of endarteritis obliterans on Sakhalin. Voen.-
med.zhur. no.11:77-78 N '57. (MIRA 11:4)
(AKHALIN--ARTERIES--DISEASES)

LYASHKO, A.G.

Diagnosis of osteogenic sarcoma. Khirurgia 33 no.4:146-148 Ap '57.
(MLRA 10:7)

1. Is Sakhalinskoy bol'nitsy.
(SARCOMA, OSTEOGENIC, diag.
case report)

LYASHKO, A.G., polkovnik med. sluzhby

Intra-arterial infusions of novocaine. Voen. med. zhur. no.3:
83-84 Mr '58. (MIRA 12:7)
(NOVOCAINE) (INJECTIONS, INTRA-ARTERIAL)

SVININ, G.F. [Svynin, H.F.]; SHISHKO, V.I. [Shyshko, V.I.];
LYASHKO, F.I.

Use of porous glass in filtration. Khim. prom. [Ukr.]
no.4:71-72 C.B.163. (MIRA 17-6)

LYASHKO, G.A.

Repeated admissions in Leningrad's psychoneurological hospitals.
Vop.psikh.i nevr. no.7:403-408 '61. (MIRA 15:8)

1. Iz otdela spetsializirovannoy pomoshchi Ministerstva zdrazvo-
okhraneniya RSFSR i organizatsionno-metodicheskogo otdela (nauchnyy
rukovoditel' doktor med.nauk G.V.Zenevich) Nauchno-issledovatel'-
skogo psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir.
B.A.Lebedev).

(LENINGRAD--PSYCHIATRIC HOSPITALS)

FEDOTOV, F.G.; YEVTIKHIYEV, P.I. [deceased]; LYASHKO, I.F., inzhener,
retsenzent; BOKOV, A.I., retsenzent; NESMELOV, V.A., retsenzent;
KABANOV, N.Ya., redaktor; POPOLOV, Ya.N., redaktor izdatel'stva;
UVAROVA, A.F., tekhnicheskii redaktor

[Technical standardization of duplicating and photocopying work]
Tekhnicheskoe normirovanie kopiroval'nykh i svetokopiroval'nykh
rabot. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1956. 86 p. (MLRA 9:10)
(Copying processes)

LYASHKO, I. I.

LYASHKO, I. I.: "A solution of the problem of filtration under a multigrooved surface with an arbitrary curvilinear underground hydraulic support". Kiev, 1955. MIn Higher Education Ukrainian SSR. Kiev State U imeni T. G. Shevchenko. (Dissertations for the Degree of Candidate of Physicomathematical Sciences.)

So: Knizhnaya letopis' No. 49, 3 December 1955. Moscow.

LYASHKO, I.I.(Kiyv)

Relation of outlet percolation rates to underground water-resistant layers. Prikl.mekh.2 no.4:438-445 '56. (MLRA 10:3)

1. Kiivs'kiy derzhavniy universitet im. Shevchenka.
(Dams) (Soil percolation)

LYASHKO, I.I.

Determining the discharge filtration rate under sheet-pile dams
subjected to curvilinear subterranean water pressure. Nauk.zap.
Kyiv.un. 16 no.2:99-110 '57. (MIRA 11:11)
(Dams) (Soil percolation)

LYASHKO, I.I.

Determining local and total pressures in leakage under a dam.
Visnyk Kyiv. un. Ser. astron., mat. ta mekh. no. 1:75-82 '58.
(MIRA 14:5)

(Dams)

AUTHOR: Lyashko, I.I.

SOV/21-59-3-4/27

TITLE: On a Case of Filtration from a Canal (Ob odnom slu-
chaye fil'tratsii iz kanala)

PERIODICAL: Dopovidi Akademii nauk Ukrain's'koj RSR, 1959, Nr 3,
pp 241-244 (USSR)

ABSTRACT: By a purely mathematical process, the author examines all pertinent data needed for determining the upper estimates of loss of liquid in a canal by way of filtration through a horizontal chink in the under-ground water-tight barrier of arbitrary shape. He gives three formulae (3-9). The results of calculations under varied conditions are compiled in a table on page 243 wherein Q is amount of lost liquid, c/d are lines bounding the width of the chink (see figure on page 241), l is length of the rabbet at one of the canal's sides, d is the width of the canal's bottom. This table is good when T (depth of location of chink) is equal to 1. Applying the formulae obtained by the author, it is possible to establish the

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On a Case of Filtration from a Canal

SOV/21-59-3-4/27

region where geological exploration might be made in a most expedient way, and where they should not be made. The calculations were performed by the method of majorant regions. There are 1 diagram, 1 table and 3 Soviet references.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko (Kiyev State University imeni T.G. Shevchenko)

PRESENTED: November 25, 1958, by I.Z. Shtokalo, Member of the AS UkrSSR

Card 2/2

88303

S/041/60/012/004/004/011
C111/C222

/6.7600

AUTHORS: Pakhareva, N.A., and Lyashko, T.I.

TITLE: On the Solution of Filtration Problems by the Method of Majorant Regions

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1960, Vol. 12, No. 4,
pp. 402 - 411

TEXT: The method of majorant regions due to M.A. Lavrent'yev and M.V. Keldysh and extended by G.N. Polozhiy (Ref. 1,4,5) and others is applied to concrete problems of the plane theory of filtration in homogeneous and heterogeneous media.

To every stationary plane ground-water movement in a homogeneous medium which satisfies the linear law of Darcy, there corresponds a complex potential by which all essential filtration characteristics can be expressed. The rate of filtration \vec{v} and the consumption of fluid Q by an arbitrary contour in the plane of filtration are given e.g. by

$$\vec{v} = \frac{dw}{dz}, \quad Q = \int_L \frac{\partial \psi}{\partial s} ds = [\psi]_L \quad \text{where } w = \varphi + i\psi \quad \text{is the}$$

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S/041/60/012/004/004/011
C111/C222

On the Solution of Filtration Problems by the Method of Majorant Regions

mentioned potential. Since the usual determination of w with the aid of the conformal mapping often causes great difficulties, Polozhiy proposed the construction of auxiliary regions (majorant regions) in which the sought filtration characteristic can be determined relatively easy and which give least upper and greatest lower bounds for the real value of the sought magnitude. The authors use this method for the following two cases:

1. for the determination of the outlet velocities of the fluid for a filtration below a two-grooved floodbed with deep-set apron at various bottom marks of the upstream and downstream water in a permeable layer of infinite depth (fig. 1) and .
2. for the determination of the discharge through an earthwork weir with mattress type drainage on a permeable base of finite depth (fig. 3)

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C111/C222

On the Solution of Filtration Problems by the Method of Majorant Regions

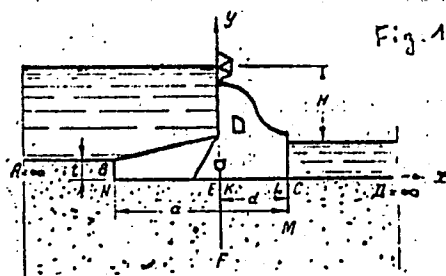


Fig. 1

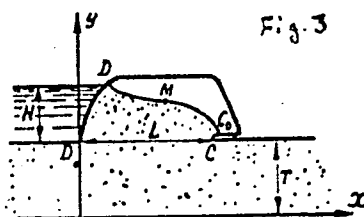


Fig. 3

If in the case 1. H is the level difference of the water level and k is the coefficient of filtration then, in a numerical example ($a = 4$, $d = 3$, $t = \frac{1}{8}$), for the outlet velocity $v|_c$ of the filtration the authors find the limits

$$0.1529 kH < v|_c < 0.1886 kH ;$$

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On the Solution of Filtration Problems by the Method of Majorant Regions

by a use of the mean value, that yields an error of $\approx 10\%$. In the second case, with the same notations, in an example ($T = 8H$, $L = 4H$) the authors find

$$0.7428 kH < Q < 1.0652 kH$$

(the error is less than 17.83%).

Then the authors consider the filtration without backwater from a channel of arbitrary cross section in a porous zonally heterogeneous soil (stratified). In this case the complex potentials are the p-analytic functions investigated chiefly by Polozhiy (Ref. 4) ; this permits to extend the method of the majorant regions also to this case (it is assumed that the coefficient of filtration $k(x,y)$ is a continuously differentiable function the derivatives of which satisfy the Hölder conditions.)

The authors mention N.Ye. Zhukovskiy and V.T. Chernoval.
There are 7 figures and 10 Soviet references.

SUBMITTED: April 7, 1959

Card 4/4

S/021/62/000/009/001/008
D234/D308

AUTHOR: Lyashko, I.I.

TITLE: Development of the method of summarized representations and its application in the theory of filtration

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 9, 1962, 1130 - 1135

TEXT: The author refers to the so-called method of summarized representations proposed by G.M. Polozhiy and considers a homogeneous rectangular lattice $x_i = x_0 + ih$, $y_k = y_0 + kh$ and a finite difference Laplace operator Δ_h . A general solution of the difference equation, $\Delta_h u = f(x, y)$, is obtained by means of n-dimensional vectors and matrices and is applied to three problems of the theory of filtration. It is stated that the method gives solutions for many problems of this kind which could not be solved by any previously known analytical or numerical methods. There are 2 figures. 1/3

Card 1/2

Development of the method of ...

S/021/52/000/009/001/008
D234/D308

ASSOCIATION: Kyivs'kyi derzhavnyi universytet (Kiev State University)

PRESENTED: by Academician Y.Z. Shtokalo, AS UkrSSR

SUBMITTED: April 5, 1962

Card 2/2

LYASHKO, I.I. (Kiyev)

Solution of the problem of a flow under a deepset multipiled
spillway by the method of summary representations. Prykl.mekh.
9 no.2:190-200 '63. (MIRA 16:3)

1. Kiyevskiy gosudarstvennyy universitet.
(Hydrodynamics)

LYASHKO, Ivan Ivanovich; ILLICHEVSKIY, S.A., red.; KHOKHANOVSKAYA,
T.I., tekhn. red.

[Solution of percolation problems by the method of integrable
representations] Reshenie fil'tratsionnykh zadach metodom
summarnykh predstavlenii. Kiev, Izd-vo Kievskogo univ.,
1963. 173 p. (MIRA 16:12)

(Soil percolation)

LYASHKO, I.I.

Development and application of the method of summary representations
in percolation theory. Dop. AN URSR no.9:1130-1135 '62. (MIRA 13:4)

1. Kiyevskiy gosudarstvennyy universitet.

LYASHKO, I.I.

Hydrodynamic calculation of drained and split aprons. Dop. AN UKSR
no.5:567-571 '63. (MIRA 17:9)

1. Kiyevskiy gosudarstvennyy universitet. Predstavlen. akademikom
AN UkrSSR V.M.Glushkovym [Hlushkov, V.M.].

MITROPOL'SKIY, Yu.A., otv. red.; BEREZANSKIY, Yu.M., red.; BREUS, K.A., red.; ZMOROVICH, V.A., red.; LYASHKO, I.I., red.; MARCHENKO, V.A., red.; PARASYUK, O.S., red.; POLOZHIY, G.N., red.; FIL'CHAKOV, F.F., red.; KULAKOVSKAYA, N.S., red.

[Mathematical physics] Matematicheskaya fizika. Kiev, Naukova dumka, 1965. 156 p. (MIRA 18:8)

1. Akademiya nauk URSR, Kiev.

LYASHKO, I.I. (Kiyev); MALYUGA, S.M. (Kiyev)

Using the method of total representation in hydrodynamic calculation
of aprons. Prikl. mekh. 1 no.6:97-105 '65. (MIRA 18:7)

1. Kiyevskiy gosudarstvennyy universitet.

DAVYDOV, Il'ya Borisovich; KALIKIN, Nikolay Fedorovich; LYASHKO, Igor'
Nikolayevich; POSTERNYAK, Ye.F., inzh., red.; FREGER, D.P.,
red.izd-va; GVIRTS, V.L., tekhn. red.

[General overhaul of a KR-450 jig-boring machine] Opyt kapital'-
nogo remonta koordinatno-rastochnogo stanka modeli KR-450. Le-
ningrad, 1962. 31 p. (Leningradskii dom nauchno-tekhnicheskoi
propagandy. Obmen peredovym opytom. Seriya: Mekhanicheskaiia ob-
rabotka metallov, no.28) (MIRA 16:3)
(Drilling and boring machinery--Maintenance and repair)

LYASHKO, M.

Thousands of slaughter sheds and houses are needed. Mias. ind.
SSSR 29 no.2:39-40 '58. (MIRA 11:5)

1. TSentral'noye statisticheskoye upravleniye pri Sovete Ministrov
SSSR.

(Slaughtering and slaughterhouses)

LYASHKO, M.

Eliminating home slaughter of cattle. Mias. ind. SSSR 30
no.3:43 '59. (MIRA 12:9)
(Slaughtering and slaughterhouses)

LYASHKO, M.

Utilize more fully hidden potentialities of livestock products in
industry. Vop. ekon. no.10:128-130 0 '59. (MIRA 12:12)
(Animal products)

LYASHKO, M.

More supplies and sales. Fin. SSSR 21 no.10:49-54 O '60.

(Industrial procurement)

(MIRA 13:10)

LYASHKO, M.

Midget or consolidated enterprises; means for developing local industries. Mest.prom.i khud.promys. 2 no.10:18-19 0 '61.
(MIRA 14:11)

1. Starshiy ekspert Gosekonomsoвета СССР.
(Industrial organization)

LYASHKO, M.

Let's talk about assortments. Mest.prom.i khud.promys. 3
no.1:11-12 Ja '62. (MIRA 15:2)

1. Starshiy ekspert Gosekonomsoвета SSSR.
(Industrial organization)
(Commodity exchanges)

LYASHKO, M.

Urgent economic task. Fin.SSSR 37 no.2:41-44 F '63.
(MIRA 16:2)
(Industrial procurement)

LYASHKO, N.G.

Distribution of production and sales centers for leather footwear.
Gov.torg. no.9:14-17 5 '57. (MLRA 10:8)
(Shoe industry)

LYASHKO, M.G.

Development of livestock breeding as a raw materials base for
industry. Leg.prom. 17 no.6:4-6 Ja '57. (MLRA 10:8)
(Russia--Manufactures) (Raw materials)
(Stock and stockbreeding)

Lyashko, M.G.
LYASHKO, M.G.

We must improve the distribution of leather footwear manufactures.
Leg.prom.17 no.9:4-6 8 '57. (MIRA 10:12)
(Shoe industry) (Industries, Location of)

LYASHEO, M. G.

"Utilize more Fully the Reserves of Animal Husbandry Raw Materials for Industry." Journal "Voprosy Ekonomiki" No. 10, 1959,

KHOREV, V.N.; BARANOVA, N.A.; GORLACH, I.A.; KVASOV, Ye.I.; KRAMARENKO, I.S.;
MIRONOV, L.V.; PRIVALOV, S.S.; LYASKO, M.V.; DUBROV, N.F.;
MIRONOV, L.V.; KOKSHAROVA, I.K.; MIKHALEV, M.S.; LAZAREV, E.M.;
KUZNETSOVA, I.R.; LAPKIN, N.I.; KRASIL'NIKOV, N.A.; GOL'DSHEYN, M.I.;
GUTERMAN, S.G.; ODINOKOV, Yu.I.; SKRYABIN, N.P.; KORSHCHIKOV, V.D.

Research by the Ural Ferrous Metal Research Institute. Stal'
22-no. 7: 621, 623, 638-639, 670 JI '62. (MIRA 15:7)
(Metallurgical research)

LYASHKO, P., polkovnik

Military engineer in a tactical exercise. Voen.vest. 40 no.4:85-88
Ap '61. (MIRA 14:7)

(Military engineering)

LYASHKO, S.

Weapons leveled at a virus. Znan. ta pratsia no.11:8-9 N '62.

(MIRA 16:1)

(VIRUS RESEARCH)

ACC NR. APPROVED FOR RELEASE: 08/31/2001 DE: CIA-RDP86-00513R001031110008-6

INVENTOR: Ostashchenko, A. V.; Melovtsov, A. A.; Goryaystov, V. P.; Lyashko, V. V.; Fridman, L. I.; Rivlin, M. I.

ORG: None

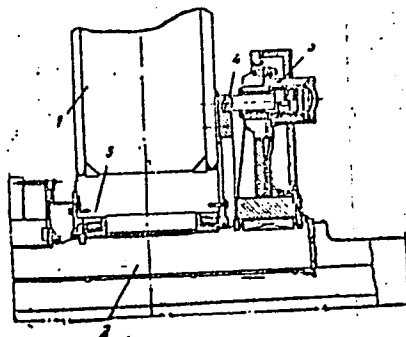
TITLE: An open-pole synchronous machine. Class 21, No. 190462

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 57

TOPIC TAGS: electric generator, electric protection equipment, hydraulic equipment, automatic control equipment

ABSTRACT: This Author's Certificate introduces: 1. An open-pole synchronous machine, e. g. a hydraulic generator, containing a device for anti-acceleration protection of the rotor by disengagement from the shaft of the drive unit when the permissible rotational velocity is exceeded. Design is simplified by making this device in the form of a system of hydraulic cylinders located around the circumference of the rotor shaft and rigidly connected to it. The cylinder rods are linked to the rotor under operating conditions and serve as disengaging elements. Bearings are used for coupling the rotor to the shaft. 2. A modification of this machine in which a slide valve with an electromagnetic drive is used for controlling the hydraulic cylinders. The pulse which operates this drive is fed from a speed relay.

ACC NR: AP7005617



1—rotor; 2—rotor shaft; 3—hydraulic cylinders; 4—cylinder rods; 5—bearings

SUB CODE: 09/ SUBM DATE: 21Dec63

Card 2/2

LYASHKO, Ye.A., inzh.; PAPUSHKO, N.I., inzh.

Operations are in accordance with advanced technology. Transp.
strol. 11 ~~na 31~~ Ag '61. (MIRA 14:9)
(Kishinev--Construction industry)

LYASHKOV, A.

"Second series of competitions in wireless telegraphy among the Yaroslav short-wave amateurs of the Dosaaf."

So. Radio, Vol. 1, p. 24, 1952

LYASHKOV, A1.

"Fourth series of competitions in wireless telegraphy among short-wave amateurs of the Dosaaf."

So. Radio, Vol. 4, p. 23, 1952

LYASHKOV, A.

Radio, Short Wave

Second radio-transmission contest of the Yaroslavl' short-wave operators. Radio, 29, no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

LYASHKOV, S.

A "ship" descends lower and lower. Znan. ta pratsia no.5:31 My '60.
(Bathyscaphe) (MIRA 13:10)

LYASHKOV, V. B.

"Investigation of Nonuniformity of Deformation During Rolling With Smooth Rollers." Cand Tech Sci, Ural Polytechnic Inst imeni S. M. Kirov, Min Higher Education USSR, Sverdlovsk, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

TARNOVSKIY, I.Ya., prof.; LYASHKOV, V.B., inzh.

Analysis of experimental data on rolling. Obr.net.davl. no.3:

116-131 '54.

(MIRA 12:10)

(Rolling (metalwork)) (Deformations (Mechanics))

TARNOVSKIY, Iosif Yakovlevich, doktor tekhnicheskikh nauk, professor;
POZDEYEV, Aleksandr Aleksandrovich, kandidat tekhnicheskikh nauk;
LYASHKOV, Vladimir Borisovich, kandidat tekhnicheskikh nauk;
ZAYKOV, M.A., redaktor; KEL'NIK, V.P., redaktor izdatel'stva; ZEP,
Ye.M., tekhnicheskij redaktor

[Deformation of metal in rolling] Deformatsiia metalla pri prokatke.
Pod obshchei red. I.IA.Tarnovskogo. Sverdlovsk, Gos.nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-
nie, 1956. 287 p. (MLRA 9:11)
(Rolling (Metalwork))

VYDRIN, Vladimir Nikolayevich; BOYARSHINOV, M.I., prof., retsenzent;
LYASHKOV, V.B., dotsent, red.; SKOROBQACHEVA, A.P., red.
izd-va; TURKINA, Ye.D., tekhn.red.

[Dynamics of rolling mills] Dinamika prokatnykh stanov.
Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i
tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1960. 255 p.
(MIRA 13:7)

(Rolling mills)

TARNOVSKIY, Iosif Yakovlevich; POZDEYEV, Aleksandr Aleksandrovich;
MEANDROV, Lev Vyacheslavovich; KHASIN, Gersh Aronovich; LYASHKOV,
V.B., red.; TSYBALIST, N.N., red.izd-vs; YEPIMAKHOVA, M.Ya.,
tekhn.red.

[Mechanical properties of steel under the effect of press forging]
Mekhanicheskie svoistva stali pri goriachei obrabotke davleniem.
Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi
metallurgii. Sverdlovskoe otd-nie, 1960. 263 p.

(Steel)

(Deformations (Mechanics))

(MIRA 13:9)

ZAYKOV, Mark Andreyevich; TARNOVSKIY, I.Ya., prof., retsenzent; POLUKHIN, P.I., prof., retsenzent; LYASHKOV, V.B., dotsent, red.; SYRCHINA, M.M., red.izd-va; MATLYUK, R.M., tekhn.red.

[Deformations and forces in hot rolling] Rezhimy deformatsii i usiliia pri goriachei prokatke. Sverdlovsk, Gos.nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1960. 299 p. (MIRA 14:3)
(Rolling mills) (Deformations (Mechanics))

KOTEL'NIKOV, V.P.; LYASHKOV, V.B.

Application of dimensional analysis to the theory of rolling. Izv.
vys. ucheb. zav.; chern. met. 4 no.8:84-88 '61. (MIRA 14:9)

1. Ural'skiy politekhnicheskii institut.
(Rolling (Metalwork)) (Dimensional analysis)

S/137/62/000/006/103/163
A052/A101

AUTHOR: Lyashkov, V. B.

TITLE: Determination by means of variation methods of the deformation distribution between layers of a bimetal cylinder at sinking

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 28, abstract 61167 ("Tr. Ural'skogo politekhn. in-ta", 1961, sb. 127, 96 - 104)

TEXT: The problem of sinking a cylinder between plane-parallel plates was solved in cylindrical coordinates z, r, φ . The cylinder consists of two cylindrical plates made of different materials (A and B), whereby $\tau_{sa} < \tau_{sb}$. Consequently under conditions of a strengthening medium the plate B begins to deform when due to the strengthening the τ_{sa} value reaches the τ_{sb} value. In derivation of the variation equation the work of external friction forces on external and internal (contacting) ends was taken into account. The uniformity of deformation was assumed (the effect of the undeformable circumference of the plates was neglected); the radial shear was determined from the conditions of incompressibility, the dependence of the intensity of tangential stresses on the intensity of shear

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S/137/62/000/006/103/163
A052/A101

Determination by means of...

deformations was taken to be a linear one. The equation of the full deformation work consists of the work of internal forces (resistances) for the plates A and B respectively, of the work of external friction forces on two contact surfaces and on the interface between the plates. The variable parameter is ϵ_a , the relative deformation of the plate A. After differentiating the equation of work ($\partial A / \partial \epsilon_a = 0$) a solution for the deformation ϵ_a and then for the deformation ϵ_b was obtained. To check the derived equation a sinking test was made on a sample consisting of Cu and Al plates. A comparison of the test data with the calculation data has shown a good coincidence in the deformation range of up to 20%. For higher deformations the deviation of calculation data for a harder material attained 23.8%. There are 9 references.

V. Osipov

[Abstracter's note: Complete translation]

Card 2/2

LYASHKOV, V.B.; TRUBIN, V.N.

Some diagrams of metal flow during rolling. Izv.vys.ucheb.zav.;
chern.met. 5 no.6:96-99 '62. (MIRA 15:7)

1. Ural'skiy politekhnicheskii institut.
(Rolling (Metalwork)) (Deformations (Mechanics))

TARNOVSKIY, Iosif Yakovlevich; PAL'MOV, Yevgeniy Vasil'yevich;
TYAGUNOV, Vladimir Arkad'yevich; MAKAYEV, Sergey
Vladimirovich; KOTEL'NIKOV, Veniamin Petrovich;
ANDREYUK, Leonid Vasil'yevich. Prinimal uchastiye
KOTSAR', S.L.; LYASHKOV, V.B., red.; SKOROBOGACHEVA,
A.P., red.izd-va; DOBUZHINSKAYA, L.V., tekhn. red.

[Rolling on a blooming mill] Prokatka na bliuminge. Mo-
skva, Metallurgizdat, 1963. 388 p. (MIRA 16:10)
(Rolling (Metalwork))

LYASHKOV, V.B.

Using variational methods to determine the distribution of deformations in the layers of a bimetal cylinder during the upsetting process. Trudy Ural. politekh. inst. no.127:96-104 '61.

Resistance to deformation of the ASM antifriction alloy.
Ibid., 114-119 (MIRA 16:8)

ACCESSION NR: AR4018334

S/0137/64/000/001/1077/1077

SOURCE: RZh. Metallurgiya, Abs. 11484

AUTHOR: Tarnovskiy, I. Ya.; Lyashkov, V. B.; Baskashvili, V. S.; Khasin, G. A.

TITLE: Plasticity and resistance to deformation of alloyed types of steel and alloys at high temperatures

CITED SOURCE: Tr. Ural'skogo n.-i. in-ta chern. met., v. 2, 1963, 146-152

TOPIC TAGS: alloyed steels, steel alloy, high-temperature steel testing, deformation resistance

TRANSLATION: Mechanical properties were determined during the stretching of 12 types of alloyed steel (structural, tool, and stainless) at 800-1,250 degrees. The tests took place on a 5-ton-capacity hydraulic press with a constant speed of engagement movement of 0.33 meters/sec. Heating and testing of samples took place in a tubular oven with carborundum rods. The true resistance to deformation S_b of the steel of all tested types was lowered by 6-10 times as the temperature of heating increased, and leveled off at 1,250 degrees, reaching approximately 2 kg/mm²; for EI435 alloy and 3Kh2V8 type steel only, under these conditions, the value of S_b

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ACCESSION NR: AR4018334

remained at 4 kg/mm². The highest S_b at 800-1,000 degrees was characterized by alloy EI 435 and type EI478 austenitic steel. At the same time, in the above temperature range, more intensive lowering of the value of S_b takes place in alloys and austenitic steels. For these materials, a continuous increase in plastic characteristics (σ and ψ) occurs with an increase in the test temperature. Pre-eutectoid types 12Kh2N4A and 5KhNT steels, in which the value of ψ changes within the range of 92-100 degrees, possess high plastic properties in the temperature range studied. With respect to 45G2, 30KhGSNA, EI 478, EKh3, and 5KhNT steels, there is a steady increase in plasticity at a temperature of about 1,000 degrees. In the remainder steels studied, a "breakdown" of plasticity is observed in the 900-1,000 degree range.

SUB CODE: MM

ENCL: 00

Card 2/2

TARNOVSKIY, I.Ya.; LYASHKOV, V.B.; GANAGO, O.A.

Review of V.G. Shal'nev's book "Expanding methods of metal-
working by pressure. Kuz.-shtam. proizvod. 5 no.9:47-48
S '63. (MIRA 16:11)

ARKULIS, Grigoriy Fomenuilovich; LYASHKOV, V.B., red.

[Simultaneous plastic deformation of dissimilar metals]
Sovmestnaia plasticheskaya deformatsiya raznykh metallov.
Moskva, Izd-vo "Metallurgiya," 1964. 270 p.

(MIRA 17:7)

ACCESSION NR: AP4029706

S/0136/64/000/004/0061/0065

AUTHORS: Stukach, A.G.; Lyashkov, V.B.; Lekarenko, Ye.M. (Deceased);
Pokrovskaya, G.N.; Zy*kov, Yu. S.; Cherny*kh, K.P.

TITLE: Deformation resistance During Impact Testing

SOURCE: Tsvetny*ye metally*, no. 4, 1964, 61-65

TOPIC TAGS: deformation resistance, impact test, static test, friction press hot rolling, alloy, copper, brass, zinc, bronze

ABSTRACT: The authors investigated the deformation resistance of "M-1" copper, "TsO" zinc, "N1" nickel, "L62" brass, "BrKD1", "BrOTs4", "BrKMts3-1", "BrB2" and "NMZhMts28-2,5-1,5" bronze and "NKh9" chrome specimens. Impact tests approximated the service conditions during hot rolling. 25 mm long cylindrical specimens with a 20 mm diameter were reduced by 50% at a rate of deformation of 10 m/sec. A 60-ton friction press was used in combination with an electric furnace equipped with a Silite resistor. A study of the hardening diagrams showed that the hardening curves ascend sharply at low temperatures for most of the specimens submitted to increased deformation.

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This shape of the curves is characteristic of high-melting and complex alloys. Low-melting resistant alloys show a peak which falls off as the degree of deformation is increased and deformation resistance declines (zinc, "BrBZ bronze alloy). For "L62" brass and copper the work hardening is eliminated above 700C owing to the high rate of recrystallization. These findings stand in good agreement with the results obtained by other authors. Bronze alloy "BrOts4-3" and "BrKd1" specimens were reduced at a rate of 0.045 m/sec in a series of static tests. This tremendous increase in the rate of deformation resulted in an increased specific pressure and, consequently, the deformation resistance of "BrOts4-3" specimens was tripled. The same dependence was observed in "BrKd1" specimens. The results of static tests showed their unsuitability for the calculation of the industrial processes which occur at high rates of deformation. Changes in the rate of deformation by about 1.5 to 2 times do not affect the deformation resistance. Therefore, the specific pressures obtained at a 10 m/sec rate are applicable to similar rates. The orig. art. has: 3 figures.

Card 2/2 ✓

KHAYKIN, B.Ye.; TARNOVSKIY, I.Ya.; LYASHKOV, V.B.

Totality of criteria characterizing the shape of the center of deformation during rolling. Izv. vyzn. ucheb. zav.; Chern. met. 8 no.7:102-107 '65.
(MIRA 18:7)

1. Ural'skiy politekhnicheskiy institut.

LYASHKOVA, M. N. .

LYASHKOVA, M. N. - "A comparative evaluation of certain tissues in the creation of artificial collateral blood circulation" (Experimental-morphological investigation on dogs). Sverdlovsk, 1955. Sverdlovsk State Medical Inst. (Dissertation for the degree of Candidate of Medical Sciences).

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

LYASHNITSKIY, V. Ye.

551.585.1:551.556:551.465(47)
 Lyashnitskiy, Valerian Evgen'evich, Morskoe porty. [Sea ports.] Moscow, Izdat.
 "Morskoi Transport," 1948. 561 p. 494 figs., 86 refs. DLC—On p. 55-57 there is a dis-
 cussion of meteorological and climatic factors affecting coast lines and installations. These in-
 clude winds, air and water temperatures (freezing), and fog. Uses of frequencies of occurrence
 are emphasized, for instance, frequency of winds of various forces and from various quadrants
 (wind roses) instead of prevailing or average values. Examples of wind roses showing con-
 struction and application to a point on the Caspian Sea are given. Observations of freezing
 and opening of harbors and observations of water temperature are also discussed. In the
 previous chapter the effect of wind in producing waves, high tides and the effects of these
 forces on harbors is treated in greater detail. Subject Headings: 1. Marine meteorology
 2. Wind effects 3. Wind roses 4. Coastal climates 5. U.S.S.R.—M.R.

LYASHOK, F.G., inzhener; MARKMAN, F.S., inzhener.

Assembly of electrolytic apparatus. Elek.sta. 27 no.4:26-28 Ap '56.
(MLRA 9:8)

(Electrolysis)

LYASHUK, R.

Equipment used for repairing fire hoses. Pozh.delo 4 no.11:21
N '58. (MIRA 11:12)

(Hose--Maintenance and repair)

LYASHUK, R., inzh; BOGDANOV, A., inzh.

Drying hoses in tower driers. Pozh. delo 5 no.10:27-28 0 '59.
(MIRA 13:2)

(Hose--Drying)

LYASHUK, R., inzh.; CHIBIRSOV, K.

Winches for hose handling. Pozh.delo 7 no.5:26-27 My '61.
(MIRA 14:5)

(Fire departments---Equipment and supplies) (Winches)

LYASHUK, R.

Apparatus for testing jet hose. Pozh.deol 9 no.2:26 F '63.
(MIRA 16:3)

(Hose—Testing)

TOKMAKOV, P.P.; GLAZOV, A.V.; LYASIK, S.A.

Origin of the unusual form of quartz "pebbles" in the eastern slope
of the Southern Urals. Trudy IGEM no.40:62-65 '60. (MIRA 13:11'
(Ural Mountains--Quartz)

LYASKENKO, V. D., KRUZLIKOV, A. M., SHAL'NEVA, A. M., GUZACHEVA, V. M.,
TITROVA, A. I., ZAITSEV, A. A., POKROVSKAYA, E. V., POPOVA, E. V.,

"The sources of leptospirosis infection in nature (according to the Stavropol' region materials)." p. 154

Desyatoye Soveshchaniye po parazitologicheskim problemam i prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

Inst. of Vaccines and Sera and Regional Sanitary-Epidemiological Station/Stavropol'

LYASKIN, V.T., inzhener.

Leningrad's experience in the use of large building blocks.

Gor.khoz.Mosk. 28 no.7:21-26 J1 '54. (MIRA 7:7)

(Leningrad--Building blocks) (Building blocks--Leningrad)

(Precast concrete construction)

LYASKIN, V.T., inzhener

Mechanized production of large-size slag concrete blocks for wall
construction. Mekh. stroi. 12 no.6:15-19 Je '55
(Building blocks)

(MLRA 8:6)

^T
~~LYASKIN, V.~~ inzh.; SMIRNOV, Ye., inzh.; MALYSHEV, D., inzh.

Erecting large-block houses with materials taken directly from
trucks. Zhil. stroi. no.3:14-17 '59. (MIRA 12:6)
(Apartment houses) (Precast concrete construction)

LYASKIN, V.¹; SMIRNOV, Ye., glavnyy tekhnolog; MALYSHOV, D., inzh.

Erecting houses with materials taken directly from trucks in
Leningrad. Stroitel' no.4:5-7 Ap '59. (MIRA 12:6)

1. Upravlyayushchiy trestom No.102 Glavleningradstroya (for Lyaskin).
2. Trest No.102 Glavleningradstroya (for Smirnov).
(Leningrad--Precast concrete construction)

^{T.}
~~LYASKIN, V.~~ inzh.; MALYSHEV, D., inzh.

Large-panel housing construction in Leningrad. Zhil.stroi. no.4:
10-13 '59. (MIRA 12:6)
(Leningrad--Apartment houses)

14(2,10)

SOV/100-59-5-1/14

AUTHORS: Lyaskin, V.T. and Malyshev, D.I., Engineers

TITLE: Construction of Apartment Houses Direct From Trucks

PERIODICAL: Mekhanizatsiya stroitel'stva, 1959, Nr 5, pp 1-3 (USSR)

ABSTRACT: The article describes the construction of a large 5-story apartment house in Leningrad having a capacity of 13,532 cum which was built from material as it arrived by truck. For this purpose special production plans and schedules were being worked out which coordinated the speed of the arrival of material with the rate of construction and the specific requirements of the builders. The construction site was specially adapted for continuous traffic, unloading and putting in place of prefabricated blocks, panels and other structural elements by means of a special M3-5-5 crane. Every operation being timed in advance, truck after truck could arrive according to time table, without having to wait in a line, or the builders having to wait for the required material. While standard blocks, panels, window elements etc. were used for building as they arrived, other units, which could not be included in the running schedule, were put in store on the site, pending their requirement. The supervision of the job as a whole was performed by the engineer-dispatcher, while a complex brigade consisting of 5 teams was in charge of actual assembly. The article concludes with a comparison between the old and new methods of construction. Block Nr 12 was

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Construction of Apartment Houses Direct From Trucks

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started on the 2 Oct and completed on the 26 Nov representing 336 men days as against 496 men days required by the old method, which constitutes a gain of 32%. Labor efficiency by the new method increased 42%. The building of block Nr 12 was an experiment, which had proved sufficiently successful to be adopted in a number of houses now under construction in Leningrad. The method of constructing houses direct from trucks is contributing largely to the improvement of house-construction, reducing cost of same at the same time. There are 2 photos and 1 diagram.

ard 2/2

LYASKIN, V.; MALYSHEV, D., inzh.

Constructing large-block apartment houses. Stroitel' no.4:5-7 Ap
'60. (MIRA 13:6)

1. Upravlyayushchiy trestom No.102 (for Lyaskin).
(Leningrad--Apartment houses)

I. 08659-67 ENT(m) WE
 ACC NR: AP6015121 (A) SOURCE CODE: UR/0064/66/000/005/0018/0020
 AUTHOR: Dzhagatanyan, R. V.; Lyashin, Yu. G.; Filippov, M. T.; Sinitsin, V. I.;
 Yakimenko, L. M.; Globova, L. I.; Zetkin, V. I.
 ORG: none
 TITLE: Radiation chlorination of kerosene
 SOURCE: Khimicheskaya promyshlennost', no. 5, 1966, 18-20
 TOPIC TAGS: kerosene, gamma radiation, chlorination, photochemistry
 ABSTRACT: Groznyy kerosene, from which the aromatic and unsaturated compounds were eliminated by extraction with liquid SO₂ was used during chlorination initiated by γ -radiation of Co⁶⁰ made in the apparatus described by the authors previously (Khim. prom. no. 4, 247, 1965). After purification the kerosene had a molecular weight of 177. Chlorine was passed at the rate of 0.469 g/min in the reactor set into a thermostat with a controlled given temperature. The radiation source was introduced after 15 minutes. The chlorination products were purified from Cl₂ and HCl by passing a flow of nitrogen. The densities and refractive indexes were measured and the degree of chlorination was determined from the graphs, plotted experimentally, showing the dependence of density d_{20}^{20} and the refractive indexes n_D^{20} of the chlorinated products on their chlorine content. Kinetic curves (content of chlorine vs time in min) were
 Card 1/2 UDC: 665.634-4 : 66.094.403.085.3

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ACC NR: AP6015121

plotted at various temperatures of chlorination ($T = 20, 40, \text{ and } 60^\circ\text{C}$) and at various doses of radiation ($P = 26.1, 7.3, 1.8, \text{ and } 0.81 \text{ rad/sec}$). The dependence of the radiation-chemical efficiency coefficient G (number of atoms bound with carbon per 100 equivalent) on the radiation dose P was plotted from kinetic curves. The expression $G = 1.22 \cdot 10^9 e^{-\left(\frac{1600}{T} + 5.76 \cdot 10^{-2} [\% \text{Cl}]\right)} P^{-0.47}$ well describes the results obtained. (Dis-agreement of experimental and calculated values averaged $\pm 10.8\%$.) This equation can be used for designing a reactor for a temperature range of $0-100^\circ\text{C}$, a radiation dose of $1-50 \text{ rad/sec}$, and a chlorine content of $5-60\%$. The apparent energy of activation was determined as 3200 cal/mole . The results of radiation chlorination were compared with those of photochemical chlorination and chlorination initiated by azo-bis-isobutyronitril. It was shown that the same degree of chlorination was achieved more rapidly during radiation chlorination. At $T = 20^\circ\text{C}$ and $P = 26 \text{ rad/sec}$, the product containing $\text{Cl} > 60\%$ was obtained in 90 minutes during radiation chlorination. It took 23 and 21 hours to obtain the same product by photochemical chlorination and chlorination initiated by azo-bis-isobutyronitril, respectively. Radiation chlorination also has other advantages: it depends little on temperature and is controlled by the radiation dose (easily controllable rate of chlorination), the rate of the radiation process does not depend on the color of the reacting mixture, and there is a much smaller danger of resinification because of an absence of local overheating. Orig. art. has: 3 fig., 4 formulas, and 1 table.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Card 2/2